THE SYNTAX OF DISJUNCTIVE QUESTIONS

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1. INTRODUCTION

Disjunctive questions **(DQ)** are questions that contain a disjunction phrase **(orP)**, like the one in (1).

1. Did John eat beans or rice?   (Han and Romero, 2004a: 528)

The DQ in (1) is ambiguous. It may be interpreted as having the yes/no **(YN)** reading in (2a) or as having the alternative **(ALT)** reading in (2b).

2. a. Was it the case (or wasn't it) that John ate either beans or rice?   YN reading

   b. Which of the two did John eat: beans or rice?   ALT reading

Various proposals have been put forth in order to derive the ambiguity of the DQ in (1).

Larson (1985) assumes that the disjunction in English "consists of two subparts: the item *or* and one of the 'scopal indicator' elements (SIs) *either, whether,* or O (the null indicator)" (pg. 228). The SI moves out of the orP and lands in [Spec, CP] marking the scope of the disjunction. In DQs, YN reading obtains if the SI originates in the orP which contains (overt or null) *or not*, as shown in (3a) for *whether*, while ALT reading is derived if the SI is extracted out of the orP that contains overt disjuncts, as in shown in (3b) for the null indicator.

3. a. *YN reading*   b. *ALT reading*   (Larson, 1985)
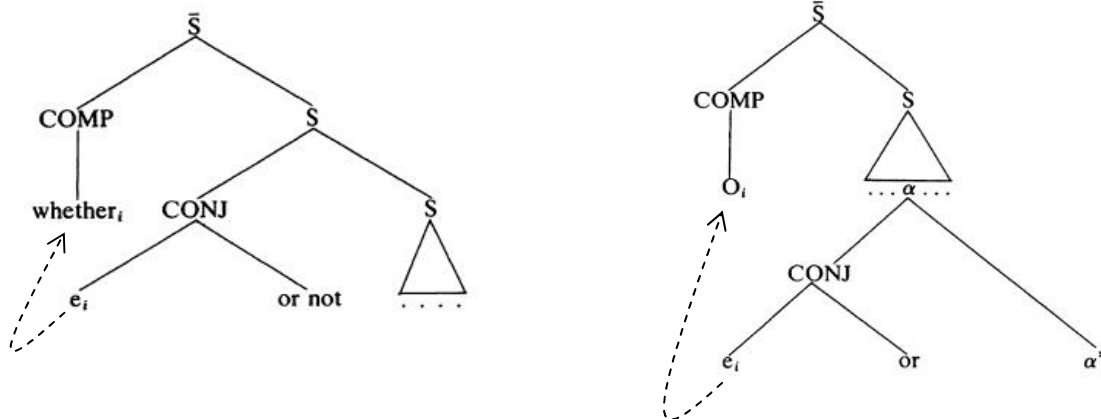
McCawley (1988) proposes that the ALT reading of questions like (1) is derived by positing in the structure an abstract wh-element to which the disjunction phrase is adjoined, whereas the representation of the YN reading contains no such wh-element. On this analysis, then, the DQ in (1) would be represented as (4a) on YN reading and as (4b) on ALT reading.

4. a. [$_{CP}$[$_{C'}$ did$_i$ [$_{TP}$John t$_i$ [$_{VP}$ eat [$_{NP}$ beans or rice]]]]]   YN reading

   b. [$_{CP}$[$_{C'}$ did$_i$ [$_{TP}$ John t$_i$ [$_{VP}$ eat [$_{NP}$ [WH] [$_{NP}$ beans or rice]]]]]]   ALT reading

More recently, Han and Romero (2004a, 2004b) combined Larson's (1985) analysis of DQs with Schwartz's (1999) ellipsis account of *either...or* constructions, and argued that ALT readings of DQs involve both movement and ellipsis. They follow Larson in positing an empty operator **(Q)**, which originates on the orP, and then moves to [Spec, CP]. They depart from Larson in proposing that ALT readings are in fact derived from clausal disjunction, in which parts of the second conjunct are deleted. On this account, the LF responsible for the ALT-reading of (1) looks like (5).

5. [$_{CP}$Q$_i$ did [$_{orP}$ t$_i$ [$_{orP}$ John eat beans or ~~John eat~~ rice]]]   (Han and Romero, 2004a: 537)

Although Han and Romero do not explicitly investigate YN readings of DQs, they do point out analyses of YN readings that are compatible with their analysis of ALT readings. One of these analyses is that YN questions are in fact a disjunction of clauses of opposite polarity, with the deletion of one entire disjunct together with the disjunction *or*, as in (6a). The other, illustrated in (6b), is that no clausal disjunction is present and in that case Q does not associate with *or*.

6. a. [$_{CP}$Q$_i$ did [$_{orP}$ t$_i$ [$_{orP}$ John eat beans or rice ~~or John not eat beans or rice~~]]]
   b. [$_{CP}$Q did John eat [$_{orP}$ beans or rice]]   (Han and Romero, 2004a: 557)

Beck and Kim's (2006) analysis of intervention effects in ALT questions, on the other hand, points to the conclusion that ALT readings cannot involve disjuncts that are clausal (and involve ellipsis). They show that a focusing or quantificational element in a DQ "puts a roof on the size of the disjuncts, in that an analysis must be excluded in which [this element] is part of [both] disjuncts and has been elided [in the second one]." (pg. 204) This is because if (7a), taken from Beck and Kim (2006), involved the underlying structure of (7b) with the deletion of *nobody*, we would expect (7a) to have ALT reading (just like (7b) does), contrary to fact.

7. a. Did nobody sing or dance?   *ALT reading
   b. Did nobody sing or nobody dance?   ✓ALT reading

In this talk, I attempt to provide the account of syntactic differences between ALT and YN readings of DQs. In contrast to both Han and Romero (2004b) and Beck and Kim (2006), who arrive at their conclusions by focusing on circumstances that make a DQ lose the ALT reading (the presence of preposed negation and of an intervening phrase respectively), I focus on circumstances in which it is YN readings that disappear.

Based on examples from Croatian, I argue that ALT readings involve disjuncts larger than TPs, while YN readings involve a disjunction of phrases smaller than CPs (Pruitt and Roelofsen, 2011).

2. DISJUNCTIVE QUESTIONS IN CROATIAN AND THE DISAPPEARANCE OF YN READINGS

YN questions in Croatian are formed by the particle *li*,[1] which is a second position clitic that has to follow the first prosodic word in its clause (Franks and King, 2000).

Croatian has two different strategies for the formation of YN questions, depending on what serves as the host for the second position clitic *li* (Alexander, 2006):

   i. The COMP-STRATEGY: *li* follows the complementizer-like particle *da*, as in (8);

   ii. The INVERSION STRATEGY: *li* follows the main verb or the auxiliary of the clause, as in (9).

8. Da   li Jan jede jabuke?   COMP-STRATEGY
    that LI Jan eat   apples
    'Does Jan eat apples/Is Jan eating apples?'

9. a. **Jede** li Jan jabuke?   INVERSION STRATEGY – *main verb*
      eats LI Jan apples
      'Does Jan eat apples/Is Jan eating apples?'

    b. **Je** li Jan jeo   jabuke?   INVERSION STRATEGY – *auxiliary verb*
      aux LI Jan eaten apples
      'Did Jan eat apples?'

I assume that in the inversion strategy of YN question formation, the tensed verb moves to the sentence initial position to host *li* (Franks, 1999; Franks and King, 2000), as in (10).

10.
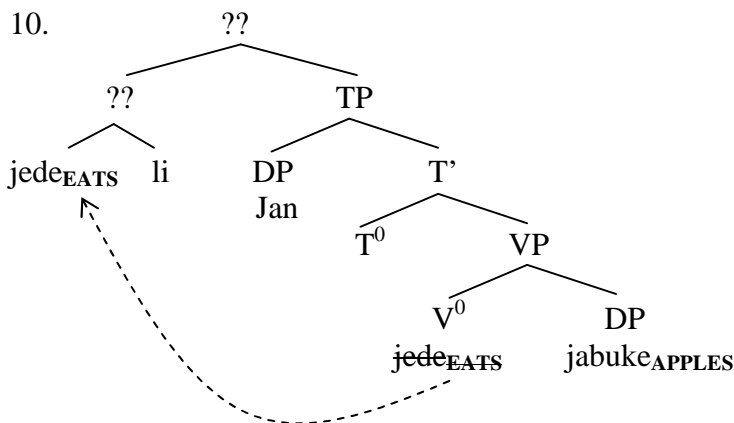
The two strategies for forming YN questions in Croatian are both also attested in DQs, as shown in (11). Moreover, the two DQs, (11a) and (11b), do not differ in the availability of the YN or ALT readings: both are available in both examples.

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[1] Progovac (1996), Stjepanovi (1999), and Schütze (1994), among many others, consider *li* to be the question particle.

11. a. Da li Jan voli Hanu   ili Doru?   DQ: COMP-STRATEGY
    that LI Jan loves Hana.ACC   or Dora.ACC   ✓ALT reading/✓YN reading
    'Does Jan love Hana or Dora?'

  b. Voli li Jan Hanu   ili Doru?   DQ: INVERSION-STRATEGY
    loves LI Jan Hana.ACC   or Dora.ACC   ✓ALT reading/✓YN reading
    'Does Jan love Hana or Dora?'

DQs formed by the Comp-strategy and the inversion strategy differ, however, when the disjuncts are bigger than the DP. While such DQs formed through the Comp-strategy allow for both interpretations, as in (12), the YN reading disappears in (13), formed through the inversion-strategy.

12. a. Da li Vid ita novine   ili gleda vijesti?   COMP-STRATEGY: *VP disjunction*
    that LI Vid reads newspaper or   watches news   ✓ALT reading/✓YN reading
    'Does Vid read the newspapers or watch the news?'

  b. Da li Vid traži posao ili Dan diže kredit?   COMP-STRATEGY: *TP disjunction*
    that LI Vid seeks job   or Dan lifts loan   ✓ALT reading/✓YN reading
    'Is Vid looking for a job or Dan getting a loan?'

13. a. ita li Vid novine   ili gleda   vijesti?   INVERSION-STRATEGY: *VP disjunction*
    reads LI Vid newspaper or   watches   news   ✓ALT reading/***YN reading**
    'Does Vid read the newspapers or watch the news?'

  b. Traži li Vid posao ili Dan diže kredit?   INVERSION-STRATEGY: *TP disjunction*
    seeks LI Vid job   or Dan lifts loan   ✓ALT reading/***YN reading**
    'Is Vid looking for a job or Dan getting a loan?'

3. THE ANALYSIS

I argue that the disappearance of the YN reading in (13) is explained if a DQ has the YN reading when the disjuncts are 'small', while it has the ALT reading when the disjuncts are 'big'. In particular, I propose that:

- On the YN reading, disjuncts are as big as it appears on the surface (i.e. no bigger than the structure that overtly follows the disjunction, and maximally the size of a TP).

- On the ALT reading, disjuncts are bigger than TPs, are at least as big so as to include the clitic *li*, but probably do not include the layer of the structure that hosts the head bearing the interrogative feature (so, disjuncts are probably not full CPs). [2] This implies that *li* does not occupy the C^0 position and is not a question particle (Arsenijevi , 2011).
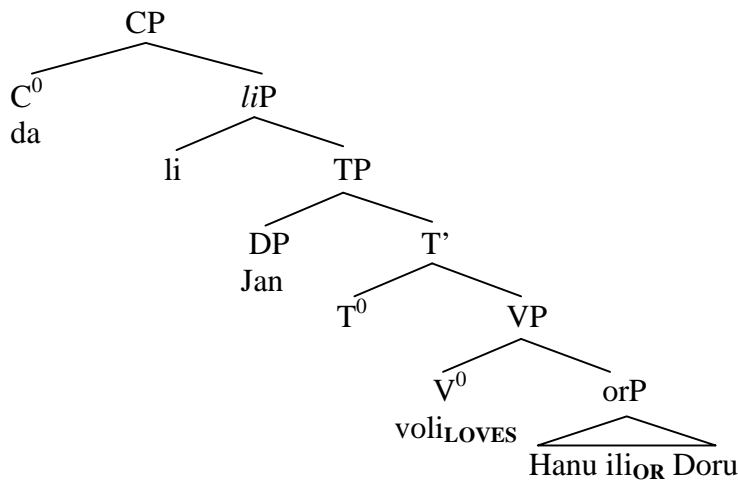
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[2] An anonymous SINFONIJA reviewer points out that if the disjuncts were CPs, a DQ would "instruct the hearer to either answer one yes-no question or the other." This is clearly not the reading of a DQ. I therefore revised my analysis of ALT readings so as to involve a projection higher than TP (one which hosts the clitic *li*), but not the CP layer *per se*. In other words, a DQ contains only one locus of the interrogative force, higher than the disjunction. However, the question remains why English examples in (i), taken from Pruitt and Roelofsen (2011), which presumably involve CP disjunction, have the ALT reading, but not the reading pointed out by the reviewer.

I will assume, for concreteness, following Arsenijevi (2011), that *li* is in an element that pairs up the focused element in the clause with the polarity feature, and assigns contrastive focus to the pair. Thus, *li* is not located in C^0, but rather in a lower projection. I will call this phrase simply *li*-phrase (*li*P).[3]

Thus, the DQ in (11), repeated in (14), which is formed by the Comp-strategy, is ambiguous between the structure in (15a), responsible for the YN reading, and the one in (15b), responsible for the ALT reading.

14. Da li Jan voli Hanu   ili Doru?   DQ: COMP-STRATEGY
    that LI Jan loves Hana.ACC   or Dora.ACC   ✓ALT reading/✓YN reading
    'Does Jan love Hana or Dora?'

15. a.   CP   DQ: COMP-STRATEGY
                                                                          YN reading

    b.   CP   DQ: COMP-STRATEGY
                                                                          ALT reading
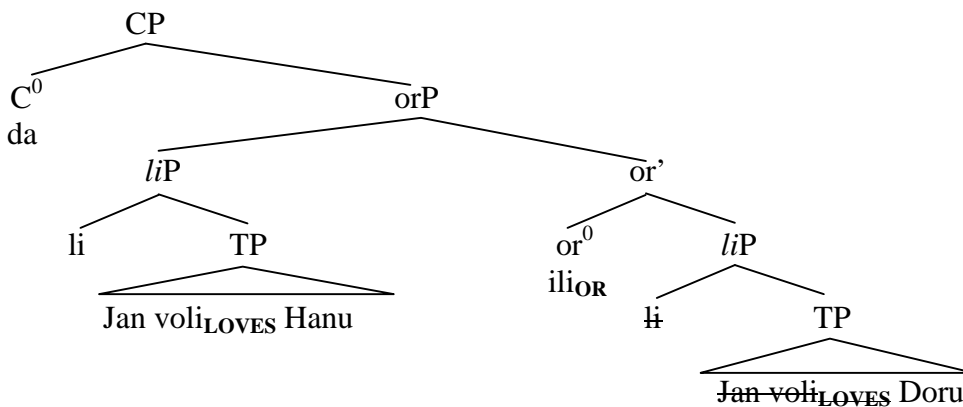
The two readings of the DQ in (11b), repeated in (16), which involves the inversion strategy, are derived in virtually the same way, except that the host for the clitic *li* is provided by the movement of the tensed verb from the first conjunct to *li*. This is shown in (17a) for the YN reading and in (17b) for the ALT reading.

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    i. Did Sally bring wine or did she bring juice?

[3] Arsenijevi (2011) places *li* in the polarity phrase (PolP).

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16. a. Voli li Jan Hanu   ili Doru?   DQ: INVERSION-STRATEGY
       loves LI Jan Hana.ACC   or Dora.ACC   ✓ALT reading/✓YN reading
       'Does Jan love Hana or Dora?'

17. a.   CP   DQ: INVERSION-STRATEGY
                                                                              YN reading

    b.   CP   DQ: INVERSION-STRATEGY
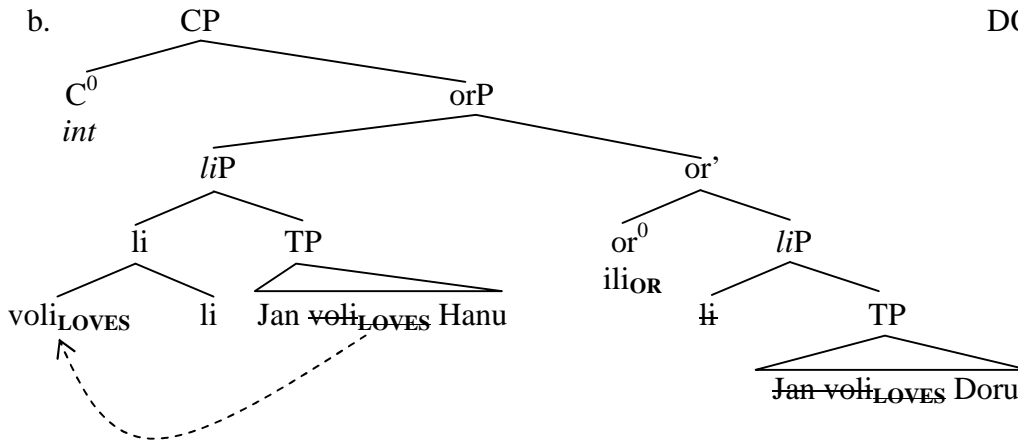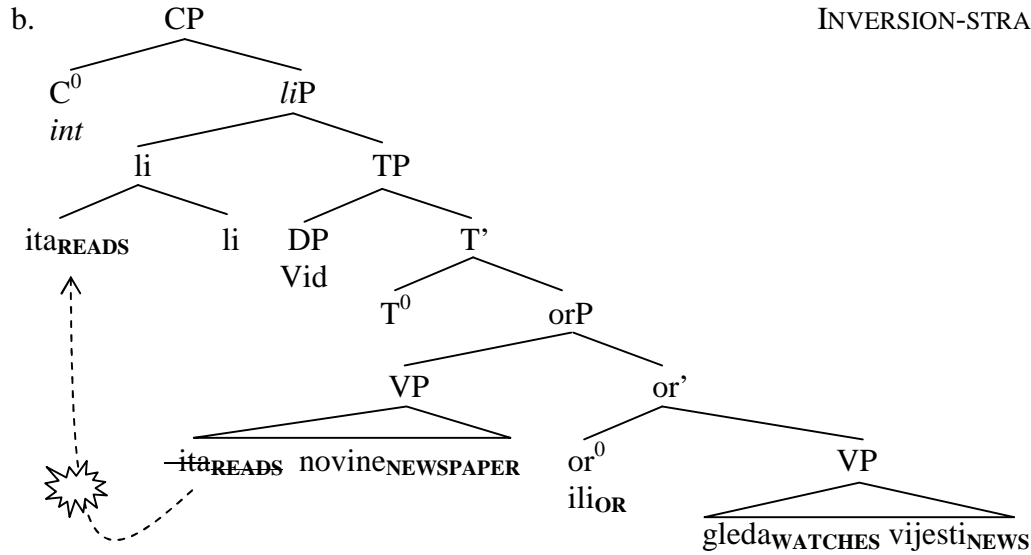   ALT reading

Leaving aside for a moment the ALT reading and the difficulties it presents, let me turn to how the analysis derives the absence of the YN reading in (13).

The DQs in (13) involve the inversion-strategy, just like the DQ in (11b)/(16). However, as opposed to (11b)/(16), the disjuncts in (13) are big enough to involve the tensed verb. Thus, the obligatory movement of the verb only from the first conjunct violates the Coordinate Structure Constraint **(CSC)**, as shown in (18b) for (13a). This makes the structure ill-formed and the YN reading unavailable.
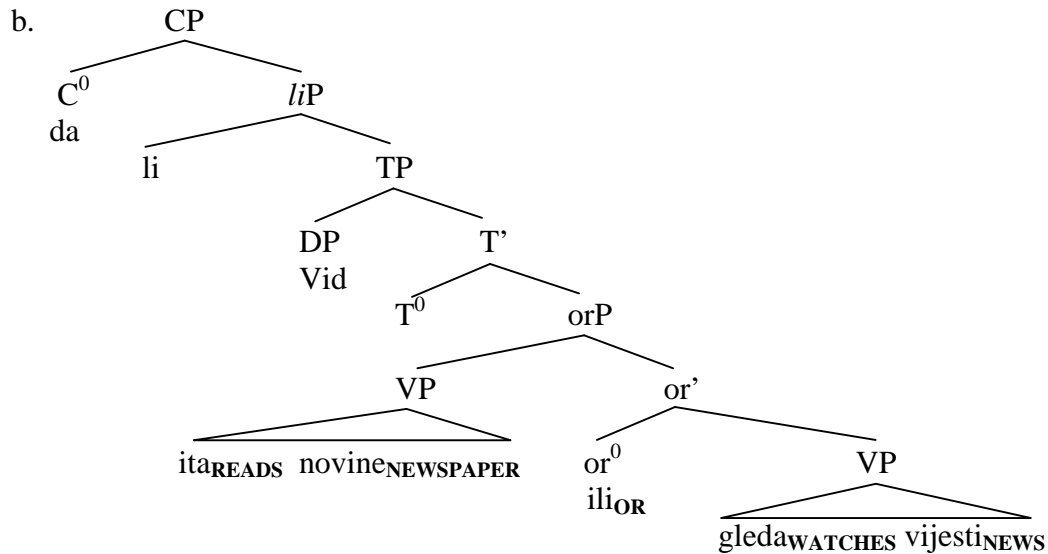
18. a. Čita li Vid novine   ili gleda vijesti?   INVERSION-STRATEGY: *VP disjunction*
       reads LI Vid newspaper   or   watches news   ✓ALT reading/***YN reading**
       'Does Vid read the newspapers or watch the news?'

b.   CP   INVERSION-STRATEGY: *VP disjunction*

*YN reading

A tree diagram for the inversion strategy. CP dominates C⁰ (int) and *li*P. *li*P dominates *li* and TP. *li* dominates ita$_{READS}$ and *li*. TP dominates DP (Vid) and T'. T' dominates T⁰ and orP. T⁰ dominates VP. VP dominates (struck-through) ita$_{READS}$ and novine$_{NEWSPAPER}$. orP dominates VP and or'. or' dominates or⁰ (ili$_{OR}$) and VP. VP dominates gleda$_{WATCHES}$ vijesti$_{NEWS}$. A dashed movement arrow goes from ita$_{READS}$ in VP up to ita$_{READS}$ in *li*, with a starburst symbol.

On the other hand, when the Comp-strategy is utilized, then the host for *li* is the particle *da* (possibly a complementizer?), and no movement out of a coordinate structure is required, as shown in (19b). This is why the YN reading remains available in (12a), as opposed to (13a).

19. a. Da   li   Vid   ita   novine   ili   gleda   vijesti?   COMP-STRATEGY: *VP disjunction*
      that   LI   Vid   reads   newspaper   or   watches   news   ✓YN reading
      'Does Vid read the newspapers or watch the news?'

b.   CP

A tree diagram for the comp strategy. CP dominates C⁰ (da) and *li*P. *li*P dominates *li* and TP. TP dominates DP (Vid) and T'. T' dominates T⁰ and orP. T⁰ dominates VP. VP dominates ita$_{READS}$ and novine$_{NEWSPAPER}$. orP dominates VP and or'. or' dominates or⁰ (ili$_{OR}$) and VP. VP dominates gleda$_{WATCHES}$ vijesti$_{NEWS}$.

If this analysis is on the right track, it predicts that the YN reading is unavailable in any DQ in which the disjuncts involve the tensed verb. Thus, the absence of the YN reading in (13b), where the disjuncts are TPs, is expected.

The fact that (20) below, in which the disjuncts are (at least) VPs, but involve *infinitival* verbs, allows for the YN reading also lends support to the analysis in (18b), since in this case, it is the tensed verb *želi* 'wants' that undergoes the movement, while both infinitival forms remain *in situ*.

20. Želi   li Jan napisati seminar   ili recenzirati lanak?   INVERSION-STRATEGY: *VP disjunction*
    wants LI Jan write.INF seminar.INF or review.INF   article   ✓YN reading
    'Does Jan want to write a seminar or to review an article?'

Another piece of evidence in favor of the analisys of YN readings in (18b) comes from examples like (21), in which the presence of the subject in the second disjunct indicates that disjuncts are at least as big as vPs (or TPs). In (21), the verb which raises to provide the host for *li* is tensed, but the YN reading is nevertheless available.

The example differs from the one in (13b), which does not have the relevant reading, in that the second disjunct in (21) is gapped, so the verb raises in the Across-The-Board **(ATB)** fashion, and no CSC violation arises.[4]

21. Prodaje li Jan auto ili Hana stan?   DQ: INVERSION-STRATEGY
    sells   LI Jan car   or Hana appartment   ✓YN reading
    'Is Jan selling the car or Hana the apartment?'

So far, we have seen examples in which, if a DQ lacks the YN reading, then the DQ is derived through the inversion-strategy. However, it is not the case that any DQ formed through the Comp-strategy allows for the YN reading. In particular, the two DQs in (22), both of which involve the Comp-strategy, contrast in the availability of the YN reading: while (22a) has it, (22b) does not.

In both examples, each disjunct contains a (different) subject. They differ in that in (22b), the second conjunct also includes the auxiliary clitic *je*, while the auxiliary is absent from (22a).

22. a. Da li je Iva osvojila zlato ili Ana ispala   iz   natjecanja?   DQ: COMP-STRATEGY
       that LI aux Iva won   gold or Ana dropped-out from competition ✓ALT reading/✓YN reading
       'Did Iva win the gold or Ana drop out of the competition?'

    b. Da li je Iva osvojila zlato   DQ: COMP-STRATEGY
       that LI aux Iva won   gold   ✓ALT reading/***YN reading**

       ili je Ana ispala   iz   natjecanja?
       or aux Ana dropped-out from competition
   'Did Iva win the gold or did Ana drop out of the competition?'

The absence of the YN reading in (22b) is surprising, given what we have seen so far. Namely, given that *li* is supported by *da*, we have no reason to believe that anything from the first conjunct raised to *li*.

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[4] On Johnson's (2009) analysis of gapping, (21) involves vP disjuncts. This is compatible with my claims – the fact that the verbs are identical allows for the ATB movement (whether of the verbs themselves or of the remnant VPs that contain them), contrary to the situation in (13b).

One way in which we could account for (22b) is to capitalize on the properties of the auxiliaries in Croatian. In this language, auxiliaries are second position clitics, similar to *li*. In interrogative clauses that contain both *li* and aux, both clitics appear in the second position of the clause, in a clitic cluster, as in (23).[5]

23. a. Da li je   Ivan ustao?
       that LI aux.3SG Ivan got-up
       'Did Ivan get up?'

    b. Da li su   tvoji prijatelji stigli?
       that LI aux.3PL your   friends   arrived
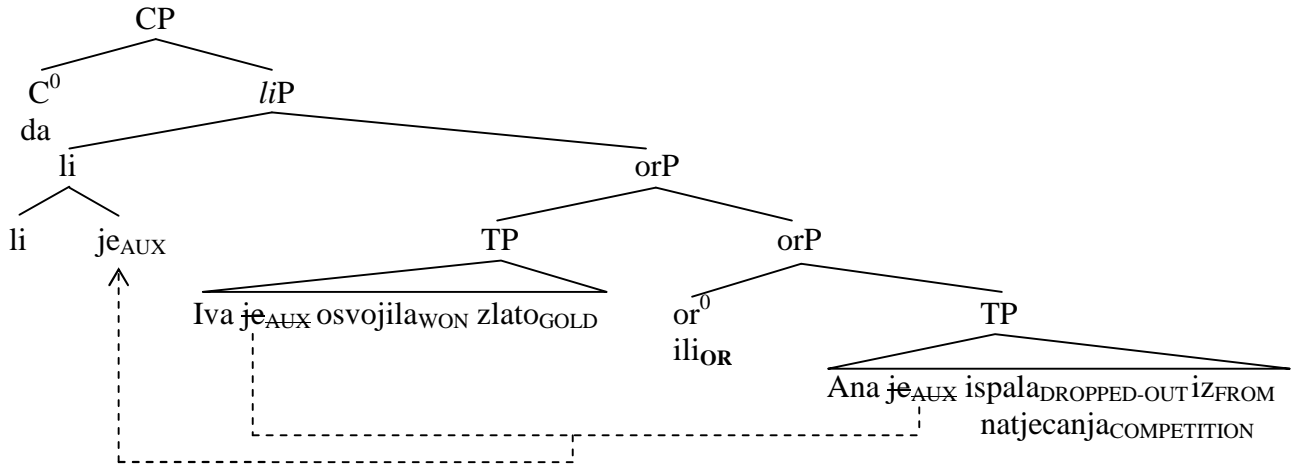   'Did your friends arrive?'

Example in (22b) might then be taken as support for the present analysis if it shows that the disjuncts must be at least as large as to contain a position which is high enough in the clause to host the second position auxiliary clitic, crucially, higher than the TP layer. Possibly, this position is adjacent to *li* (perhaps a clitic phrase?), but in any event, it is a position which is too high for the disjuncts to be TPs. Therefore, the YN reading disappears. Namely, the only possible structure for (22b) is the one in (24).

24. CP   DQ: COMP-STRATEGY
                                                                           *YN reading
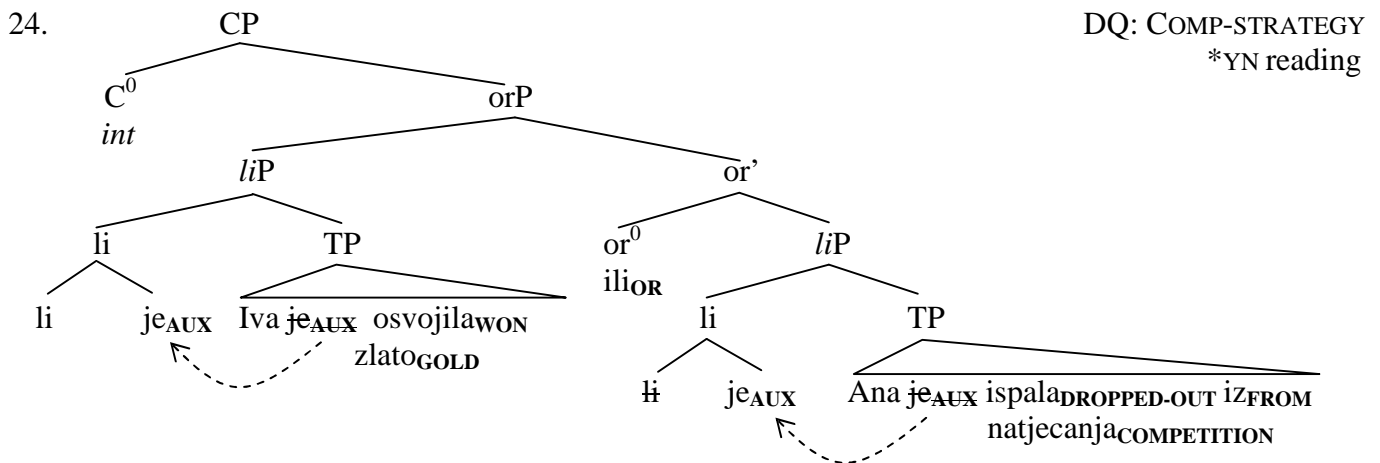
On the other hand, (22a) does have the YN reading because it can receive an analysis on which disjuncts are TPs, and the auxiliaries from both ATB move out of the orP to provide the host of the single *li*, positioned higher than the disjunction (25).

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[5] In a clitic cluster, clitics appear in the order: LI < AUX (except for *je*) < DAT(pron) < ACC(pron) < *je*

25.

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                              CP
                 ┌────────────┴──────────┐
                C⁰                       liP
                da            ┌───────────┴────────────┐
                 li                                   orP
           ┌─────┴─────┐          ┌───────────────────┴────────┐
          li        je_AUX        TP                           orP
                       ↑   ┌──────┴──────┐              ┌────────┴────────┐
                       │  Iva je_AUX osvojila_WON      or⁰              TP
                       │  zlato_GOLD                   ili_OR    ┌────────┴────────┐
                       │                                        Ana je_AUX ispala_DROPPED-OUT iz_FROM
                       │                                        natjecanja_COMPETITION
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Based on everything that we have seen, a DQ in Croatian displays the YN reading only if a structure is available in which:

i. Disjuncts are not bigger than TPs and

ii. No CSC violations obtain due to the movement of a tensed verb out of only one conjunct.

Semantically, on this syntactic representation of the YN reading, the relative scope of the disjunction, particle *li* (which, as argued in Arsenijevi (2011), creates alternatives [in our case of polarity] that contrast with one another), and the interrogative force of the question is INT > LI > OR.

This relative scope between the three elements derives the set of propositions in (26b) as the meaning of the DQ in (26a) on the YN reading, as desired.

26. a. Da   li Vid   ita novine   ili gleda   vijesti?
       that LI Vid   reads newspaper or   watches news
       'Does Vid read the newspapers or watch the news?'

    b. {it is the case that Vid reads newspaper or watches the news},
       {it is not the case that Vid reads newspaper or watches the news}

4. THE ALT READINGS: PROBLEMS

Let us now return to the fact that ALT readings remain available in all cases, regardless of the strategy of question-formation used, or the apparent size of the disjuncts. In other words, we need to account for the fact that DQs formed through the Comp- versus the inversion-strategy in (12)–(13), repeated here as (27) and (28), do not contrast in the availability of the ALT reading. Actually, the ALT reading is present in all the examples we have looked at so far.

27. a. Da   li Vid   ita novine   ili gleda   vijesti?   COMP-STRATEGY: *VP disjunction*
       that LI Vid   reads newspaper or   watches news   ✓ALT reading/✓YN reading
       'Does Vid read the newspapers or watch the news?'

 b. Da li Vid traži posao ili Dan diže kredit? COMP-STRATEGY: *TP disjunction*
   that LI Vid seeks job or Dan lifts loan   ✓ALT reading/✓YN reading
   'Is Vid looking for a job or Dan getting a loan?'

28. a. ita li Vid novine ili gleda vijesti? INVERSION-STRATEGY: *VP disjunction*
   reads LI Vid newspaper or watches news   ✓ALT reading/***YN reading**
   'Does Vid read the newspapers or watch the news?'

 b. Traži li Vid posao ili Dan diže kredit?   INVERSION-STRATEGY: *TP disjunction*
   seeks LI Vid job or Dan lifts loan   ✓ALT reading/***YN reading**
   'Is Vid looking for a job or Dan getting a loan?'

As said before, I propose that on the ALT reading, a DQ is a disjunction of phrases bigger than a TP. This is because, if the disjuncts were the size of TPs, then based on the assumptions I have been making so far, we would expect a contrast between (27b) and (28b), i.e. we would expect (27b) to be good, but we would expect (28b) to be ungrammatical. This is because if the disjuncts were TPs, on the inversion-strategy, we would still need the movement of the verb from the first conjunct to *li*, in violation of the CSC. Thus, we would expect the ALT reading of (28b) to be out for the same reason for which its YN reading is out, namely an island violation, as illustrated in (29b).

29. a. Traži li Vid posao ili Dan diže kredit? INVERSION-STRATEGY: *TP disjunction* = (28b)
   seeks LI Vid job or Dan lifts loan   ✓ALT reading
   'Is Vid looking for a job or Dan getting a loan?'

 b.
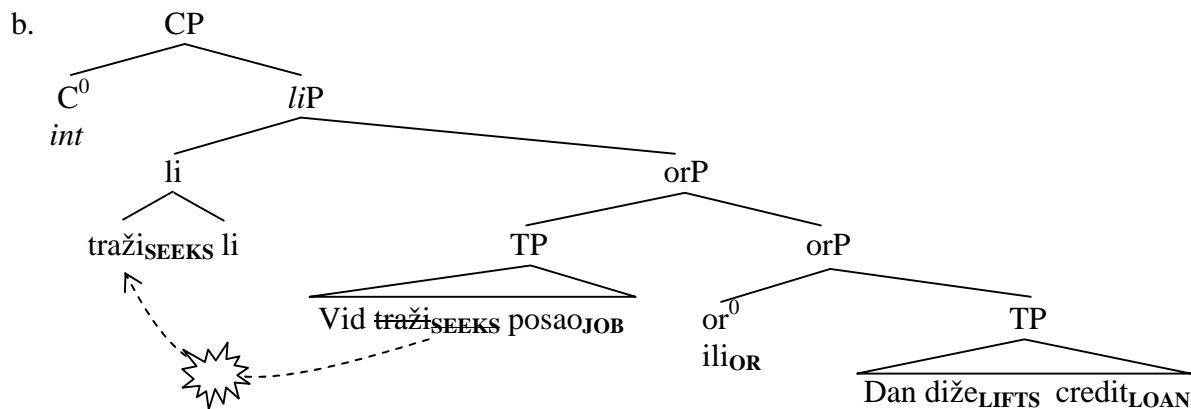
Given that (28b) is grammatical, the syntax of the ALT reading cannot involve the structure in (29b), but must involve disjuncts bigger than a TP.

The representation of (28b), then, on the ALT reading is the one given in (30). The tensed verb in the first conjunct moves to support *li*, but the movement is disjunct-internal, and thus licit.

30.   CP   INVERSION-STRATEGY: *TP disjunction* = (13b)
                                                                              ALT reading
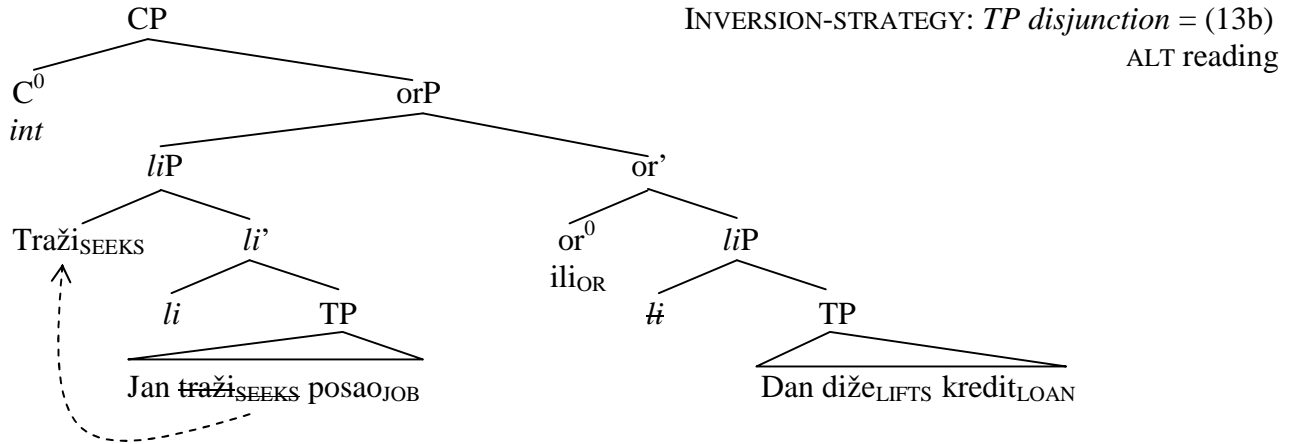
One problem that this analysis faces is the fact that in Croatian DQs, the second conjunct cannot contain any overt indication of interrogation: inversion is disallowed (31) and so is the presence of *(da) li* (32), regardless of the interrogation strategy used in the first conjunct.

31. a. *Da   li Jan piše   knjigu ili (**radi) li** Vid na scenariju?
        that LI Jan writes book or (**works) LI** Vid on script
        'Is Jan writing a book or Vid working on a script?'

    b. *Piše li Jan knjigu ili (**radi) li** Vid na scenariju?
        writes LI   Jan book or (**works) LI** Vid on   script

32. a. *Da   li Jan piše   knjigu ili (**da) li** Vid radi na scenariju?
        that LI Jan writes book or (**that) LI** Vid works on script
        'Is Jan writing a book or Vid working on a script?'

    b. *Piše li Jan knjigu ili (**da) li** Vid radi   na scenariju?
        writes LI   Jan book or (**that) LI** Vid works on script

In fact, examples in (31) and (32), if they get any interpretation at all, have the reading where the speaker is instructed to answer either one of the two YN questions or, on the specificational reading of disjunction, the string implies that the two disjuncts are semantically equivalent to each other, as the reviewer mentioned in footnote 2 points out. This reading is predicted to obtain if the disjuncts in the structure have an interrogative head each. Thus, it seems that what needs to be excluded is the disjunction of interrogative clauses (CPs).

This structure might be excluded because of the semantics that it yields, namely, because it derives neither the ALT reading, nor the YN reading.

However, there is nothing wrong with the syntactic representation *per se* since it is well-formed in embedded contexts, when the reading which obtains is the intended one.

33. a. Reci mi da li Eva igra šah ili da li Ana pleše balet.
        Tell me that LI Eva   plays chess or that LI Ana   dances ballet
        'Tell me either whether Eva plays chess or whether Ana does the ballet.'

   b. Reci mi igra li Eva šah   ili pleše li Ana balet.
      Tell me plays LI Eva   chess or dances LI Ana ballet
      'Tell me either whether Eva plays chess or whether Ana does the ballet.'

I have been arguing (based on the contrasts in availability of YN and ALT readings) that ALT readings
involve disjuncts bigger than TPs, but smaller than CPs; in particular, that they involve a disjunction of
phrases that host the clitic *li* (*li*Ps). The question then is why *li* is banned from the second conjunct as
well, i.e. why examples in (34) are ill-formed.

34. a. *Piše   li Jan knjigu ili (radi)   **li** Vid (radi)   na scenariju?
        writes LI Jan book or (works) **LI** Vid (works) on   script
        'Is Jan writing a book or Vid working on a script?'

    b. *Da   li Jan piše   knjigu ili (radi)   **li** Vid (radi)   na   scenariju?
        that LI Jan writes book   or (works) **LI** Vid (works) on   script
        'Is Jan writing a book or Vid working on a script?'

At the moment, I have no explanation for this fact. While I have to leave this issue for the future, there is
slight evidence that *li* is in fact part of the second conjunct (and consequently of the first one). This
evidence comes from examples like those in (35) and (36), which differ only in the auxiliary verb: (35a)
contains a 3rd person singular auxiliary *je*, while (36a) contains a 3rd person singular auxiliary *su*. These
two auxiliaries occupy different positions in the clitic cluster: the plural auxiliary *su* precedes the
pronominal clitics, while the singular auxiliary *je* follows them. Therefore, in (35a), deletion applies
discontinuously, as in (35b), while in (36a), shown in (36b), it does not, yielding a relatively better
judgment.

35. a. ??/* Da li ga   je Petra vidjela ili ga   Marija ula?
             that LI him.ACC aux Petra seen   or him.ACC Marija heard
             'Did Petra see him or Marija heard from him?'

    b. ??/* Da li   ga   je Petra vidjela ili l̶i̶   ga   j̶e̶ Marija ula?
             LI HIM.ACC AUX   **L̶I̶ HIM.ACC A̶U̶X̶**

36. a. ?/?? Da li su ga   prijatelji vidjeli ili ga   roditelji uli?
             that LI aux him.ACC friends   seen   or him.ACC parents   heard
             'Did Petra see him or Marija heard from him?'

    b. ?/?? Da li su   ga   prijatelji vidjeli ili l̶i̶ ̶s̶u̶ ga roditelji uli?
             LI AUX HIM.ACC   **L̶I̶ ̶A̶U̶X̶ HIM.ACC**

If the (slight) contrast in (35)-(36) is an indication of the syntactic make-up of the conjuncts, it appears
that *li* is indeed part of each, despite the fact that it cannot surface in the second one. Thus, the ALT
reading obtains if the conjuncts are big and the relative scope between the disjunction, the interrogative
force and *li* is: INT > OR > LI.

5. VIRTUE OF THE ANALYSIS I: NEGATION

Han and Romero (2004b) show that ALT reading of a DQ disappears with preposed negation, as in (37).

37. *Didn't John drink COFfee or TEA?   ✓YN reading/***ALT reading**
(Han and Romero, 2004b: 180)

In Croatian, the standard way of forming negative YN questions is to prepose the negation, as in (38).[6] The negative marker *ne/ni* surfaces as an affix on the tensed verb, with which it raises to the front of the question. Thus, a negated DQ in Croatian is always derived through the inversion strategy. As expected, (38) does not have the ALT reading.

38. Ne   pije   li Jan kavu   ili   aj?   ✓YN reading/***ALT reading**
    Neg drinks LI Jan coffee or   tea
    'Doesn't Jan drink coffee or tea?'

Han and Romero attribute the absence of the ALT reading in (38) to the interplay of the following factors:

- A DQ contains big (VP or TP) disjuncts,

- Pre-posed negation introduces into the structure the operator VERUM (which places "extra focus on polarity-related items such as auxiliary verbs or negation" (pg. 181)),

- Parts of the second conjunct are deleted.

As a consequence, a DQ with preposed negation loses the ALT reading because it either violates the Focus Deletion Constraint, given in (39), or the Focus Condition, given in (40).

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[6] Hand and Romero (2004b) report examples like (i) from Bulgarian in order to show that the contrast in the availability of ALT readings in negative DQs with and without preposed negation holds cross-linguistically. However, I find Crotian (ii) below possible, but rather marginal, especially so on the YN reading.

   i. a. Dali Ivan ne   pie   kafe ili caj?   *Bulgarian*
      Q   Ivan Neg drink coffee or tea
      'Is Ivan not drinking coffee or tea'   (YN reading/ALT reading)
    b. Ne pie li Ivan kafe ili caj?
      Neg drinkQ Ivan coffee or tea
      'Isn't Ivan drinking coffee or tea?'   (YN reading/*ALT reading)

   ii. Da   li Vid ne   jede   svinjetinu ili govedinu?   *Croatian*
    that LI Vid Neg eats   pork   or beef
    'Does Vid not eat pork or beef?'   ([?]ALT reading/^{??}YN reading)

The non-preposed negation occurs naturally in Croatian YN questions only with the interrogative particle *zar*, as in (iii), in which case the question has only the YN reading and carries the presupposition of the affirmative answer.

   iii. Zar Jan ne   pije Coca-Colu ili Fantu?   *Croatian*
    Q   Jan Neg drink Coca-Cola or   Fanta
    'Doesn't Jan drink Coca-Cola or Fanta?'   (YN reading/*ALT reading)

39. *Focus Deletion Constraint*   (Han and Romero, 2004b: 199)
    Focus-marked constituents at LF (or their phonological locus) cannot delete at Spell-Out.

40. *Focus Condition*   (Han and Romero, 2004b: 194)
    [˜*C*] is felicitous if *C* ∈ [[ ]]^f or *C* implies a member of [[ ]]^f.

If I am correct in arguing that ALT readings involve big disjuncts and YN readings small disjuncts, and if, as we have just seen, preposed negation leads to the loss of ALT readings, the analysis predicts that those DQs in which the disjuncts are big enough to include the tensed verb become ungrammatical when negated. This is indeed what we find.

41. a. Piše   li Dan knjigu ili recenzira   lanak?   ✓ALT reading/*YN reading
       writes LI Dan book   or reviews   article
       'Is Dan writing a book or reviewing an article?'

    b. *Ne piše   li Dan knjigu ili recenzira   lanak?
        Neg writes LI Dan book   or reviews   article
        'Isn't Dan writing a book or reviewing an article?'

6. VIRTUE OF THE ANALYSIS II: INTERVENTION

Beck and Kim (2006) show that the ALT reading of a DQ disappears if the orP is c-commanded by a focus sensitive operator, as shown in (42).

42. Does only John like Mary or Susan?   ✓YN reading/***ALT reading**
                                                                  (Beck and Kim, 2006: 167)

Again, the present analysis predicts that in those DQs in which the tensed verb can raise to *li* without incurring a CSC violation, addition of a focus sensitive operator above the disjunction will lead to the loss of the ALT reading, but in those DQs in which the tensed verb raises out of a coordinate structure, addition of such an operator should lead to ungrammaticality. This prediction is borne out.

43. a. Ide   li Jan u kino   ili u kazalište?   ✓YN reading /✓ALT reading
       goes LI Jan in cinema or in thater
       'Does Jan go to the cinema or to the theater?'

    b. Ide   li samo Jan u kino   ili u kazalište?   ✓YN reading/*ALT reading
       goes LI only Jan in cinema or in thater
       'Does only Jan go to the cinema or to the theater?'

44. a. Gleda   li Vid televiziju ili sluša   radio?   ✓ALT reading/*YN reading
       watches LI Vid television or listens radio
       'Does Vid watch TV or listens to the radio?'

    b. *Gleda   li samo Vid televiziju ili sluša   radio?
        watches LI only Vid television or listens radio
        'Does Vid watch TV or listens to the radio?'

7. CONCLUSION

Based on the data from Croatian, I argued that DQs are structurally ambiguous:

- The disjuncts can be 'small': this derives the YN reading of the DQ,

- The disjuncts can be 'big': this derives the ALT reading of the DQ.

I defined 'small' as not bigger than a TP, and 'big" as bigger than a TP, but not as big as a CP.

Support for the claims I argued for comes from DQs which have the ALT reading but not the YN reading. In such DQs the movement of the tensed verb, motivated presumably by the need of the clitic *li* to have a host, from the first, but not from the second disjunct violates the CSC and makes the representation illicit, leaving the big-disjunct-structure as the only possibility.

We have seen that the analysis makes correct predictions about DQs that only have the YN reading: those involving preposed negation and an intervening element: in both, the DQ becomes ungrammatical if disjuncts are big enough as to involve a tensed verb.

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